

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q79501

Patrick BERGEOT, et al.

Appln. No.: 10/766,834

Group Art Unit: 2144

Confirmation No.: 3848

Examiner: Umar Cheema

Filed: January 30, 2004

For: DEVICE FOR THE CONTROL OF HETEROGENEOUS EQUIPMENT IN A  
TELECOMMUNICATION NETWORK

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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**I. REAL PARTY IN INTEREST**

The real party of interest in this appeal is ALCATEL. Assignment of the application was submitted in the U.S. Patent and Trademark Office on May 5, 2004, and recorded on the same date at Reel 015299, Frame 0874.

**II. RELATED APPEALS AND INTERFERENCES**

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in the pending Appeal.

**III. STATUS OF CLAIMS**

Claims 1-25 are all the claims pending in the application and the subject of this appeal.

Claims 1-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayball et al. (U.S. Patent No. 6,233,610, hereafter “Hayball”) in view of Wilson (U.S. Patent Application Publication No. 2002/0029298).

**IV. STATUS OF AMENDMENTS**

No claim amendments were requested subsequent to the March 19, 2008 Final Office Action.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Independent claim 1 is directed to a management device or arrangement (D) for a communication network (N) which includes a multiplicity of equipment elements (NE-ij, FIG. 2), each associated with a primary data management protocol (for example, page 5, lines 30-32), the device or arrangement (D) including mediation means (MM, FIG. 2) coupled to the equipment elements (NE-ij, FIG. 2) and to functional interface means (MIF, FIG. 2) and system interface means (MIS, FIG. 2) coupled to a network management system (NMS, FIG. 1), characterized in that it includes protocol adaptation modules (Pa-j) in number at least equal to the number of management protocols associated with the equipment elements (for example, page 6, lines 19-24), and each arranged i) to convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to the mediation means (MM) (for example, page 7, lines 11-26), and ii) to convert secondary data, intended for an equipment element (NE-ij), into primary data in accordance with a management protocol adapted to the equipment element (for example, page 7, lines 11-26), and in that the mediation means (MM) are arranged, on receipt of the primary or secondary data, to determine the associated equipment element (NE-ij) and then to feed the protocol adaptation modules (Pa-j) corresponding to the determined equipment element (for example, page 7, line 11 to page 8, line 35).

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

I. Rejection of claims 1-25 under 35 U.S.C. § 103(a) as being unpatentable over Hayball in view of Wilson

## **VII. ARGUMENT**

Appellant respectfully submits that independent claim 1 is not rendered obvious over the disclosures of Hayball and Wilson, because the cited references do not teach or suggest all of the features of the claims.

### ***Disclosure of Hayball***

Hayball generally relates to a network management system of a network which comprises an application level which represents the functionality of a plurality of different hardware and/or software components of different propriety and different functional capabilities (column 10, lines 39-64), and an implementation level which implements control of the components. The application level is sub-divided into a plurality of application level elements each of which correspond to a function capability of a component or system (the Abstract). The implementation level is subdivided into a plurality of implementation level elements, each of which represents a system or component (the Abstract).

### ***Disclosure of Wilson***

Wilson generally relates to a system comprising a managing system 1A and a number of managed systems 3A which comprise a number of managed objects 5A. The managing system 1A sends management operations addressing managed objects on a management interface via a number of mediating managed systems (the Abstract). Management operations addressing managed objects not recognized by the receiving mediating managed system are routed to another mediating managed system (the Abstract).

**Rejection of claims 1-25 under 35 U.S.C. § 103(a) as being unpatentable over Hayball in view of Wilson**

**Analysis**

Independent claim 1 recites in part:

a multiplicity of equipment elements (NE-ij), each associated with a primary data management protocol, said device or arrangement (D) including mediation means (MM) coupled to said equipment elements (NE-ij) and to functional interface means (MIF) and system interface means (MIS) coupled to a network management system (NMS), characterized in that it includes protocol adaptation modules (Pa-j) in number at least equal to the number of management protocols associated with said equipment elements, and each arranged i) to convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means (MM), and ii) to convert secondary data, intended for an equipment element (NE-ij), into primary data in accordance with a management protocol adapted to said equipment element, and in that said mediation means (MM) are arranged, on receipt of the primary or secondary data, to determine the associated equipment element (NE-ij) and then to feed the protocol adaptation modules (Pa-j) corresponding to said determined equipment element.

The Examiner asserts that Hayball teaches all of the elements of independent claim 1 except for the element “protocol adaptation modules (Pa-j) in number at least equal to the number of management protocols associated with said equipment elements, and each arranged i) to convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means”, as recited in claim 1. The Examiner thus relies on Wilson to cure this conceded deficiency and contends that it would have been obvious to one of ordinary skill in the art to combine the references in view of their teachings in order to “allow

management of a network having a plurality of distributed components and systems".<sup>2</sup> Appellant respectfully disagrees with the Examiner's position and submits that the Examiner's position and stated rationale for the combination are severely flawed for at least the reasons discussed below.

First, Appellant respectfully submits that there is no teaching or suggestion in Hayball of the element "a multiplicity of equipment elements (NE-ij), each associated with a primary data management protocol", as recited in claim 1. The Examiner cites the Abstract and column 4, lines 29-31 and lines 48-65 of Hayball as allegedly teaching this element of the claim. However, these cited portions of Hayball merely disclose that a network comprises a plurality of components which are managed by a discrete unit of management functionality. A plurality of components are assembled with each other to form a composite assembly of components. A network management system of the network comprises an application level which represents the functionality of the plurality of different composites which are of different proprietary manufacture and different function capability, and an implementation level which implements control of the composites. The application level is sub-divided into a plurality of application level elements each of which correspond to a function capability of a composite or system, a system being a highest level of composite.

However, nowhere does this cited portion (or any other portion) of Hayball disclose a multiplicity of equipment elements is each associated with a primary data management protocol", as recited in independent claim 1. The Examiner does not indicate with any specificity how the claimed "primary data management protocol" reads on the cited portions of Hayball, but merely asserts:

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<sup>2</sup> Page 4 of the Final Office Action dated March 19, 2008.

"a multiplicity of equipment elements is each associated with a primary data management protocol (see Hayball: abstract, col. 4, lines 29-31, 48-65; managing a network having a plurality of distributed components and systems and plurality of application level elements each of which correspond to a function capability of a composite or system, a system being a highest level of composite)".<sup>3</sup>

However, Appellant respectfully submits that the Examiner is reading subject matter into Hayball that is simply not taught or suggested by the cited reference. Nowhere does this cited portion of Hayball teach or suggest "a multiplicity of equipment elements, each associated with a primary data management protocol", as recited in the claim.

Secondly, Appellant respectfully submits that there is no teaching or suggestion in Hayball of the feature "mediation means coupled to said equipment elements and to functional interface means and system interface means coupled to a network management system", as recited in the claim. The Examiner again broadly cites column 3, lines 54-65 of Hayball as allegedly teaching this aspect of the claim. However, this cited portion of Hayball merely teaches that management systems for telecommunications networks may be constructed on an ad hoc basis. Once a new communications network has been designed, or a modification to an existing communication network is made, a network manager system is created, reflecting the structure, connections, and services present in the new network. This cited portion of Hayball further teaches that conventional management systems comprise a management information base in the form of a data storage device storing data signals describing each of the network elements.

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<sup>3</sup> Pages 10-11 of the Office Action dated March 19, 2008.

However, Appellant fails to see the relevance of this cited portion of Hayball to the claimed feature. Appellant respectfully submits that there is no teaching or suggestion in Hayball of “mediation means (MM) coupled to said equipment elements (NE-ij) and to functional interface means (MIF) and system interface means (MIS) coupled to a network management system”, as recited in claim 1, nor does the Examiner indicate with any specificity how the claimed mediation means, the claimed functional interface means, the claimed equipment elements and the claimed system interface read on the cited reference.

Further, Appellant respectfully submits that there is no teaching or suggestion in Hayball of the element “protocol adaptation modules (Pa-j) in number at least equal to the number of management protocols associated with said equipment elements”, as recited in independent claim 1. According to this aspect of the invention, plural protocol adaptation modules equal in number to the number of management protocols associated with the equipment elements, convert primary data coming from equipment elements into secondary data in accordance with the management protocol associated with the network management system and converts secondary data from the network management system into primary data according to the management protocol associated with the equipment element.

The Examiner again cites column 3, lines 60-65 of Hayball as allegedly teaching this aspect of the claim. However, as discussed above, this cited portion of Hayball has little or no relevance to the claimed invention, and merely teaches that conventional management systems comprise a management information base in the form of a data storage device storing electronic data signals describing network elements and their interconnections. Nowhere does this cited portion (or any other portion) of Hayball teach or suggest “protocol adaptation modules (Pa-j) in number at least

equal to the number of management protocols associated with said equipment elements”, as recited in the claim.

Still further, Appellant respectfully submits that there is no teaching or suggestion in Hayball of protocol adaptation modules “arranged i) to convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means (MM), and ii) to convert secondary data, intended for an equipment element (NE-ij), into primary data in accordance with a management protocol adapted to said equipment element”, and the element “said mediation means (MM) are arranged, on receipt of the primary or secondary data, to determine the associated equipment element (NE-ij) and then to feed the protocol adaptation modules (Pa-j) corresponding to said determined equipment element”, as recited in the claim. The Examiner broadly cites column 5, lines 60-67 of Hayball as allegedly teaching all of these elements of the claim. However, this cited portion of Hayball merely discloses viewing means which are adapted to interface with application level elements and implementation level elements for communication of management data relating to a functionality of at least one assembly independently of an implementation of the functionality, and management data relating to a component-specific view of an implementation of the functionality. The relevance of this cited portion of Hayball to the claimed invention is quite unclear to Appellant.

Appellant further notes that although the Examiner asserts that Hayball discloses protocol adaptation modules which “convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means

(MM)",<sup>4</sup> the Examiner then acknowledges that Hayball does not teach or suggest this aspect of the claim, and broadly cites (without any indication of how the claimed elements read on the cited reference), the Abstract and paragraphs [008] and [0009] of Wilson as allegedly teaching this aspect of the claim. However, nowhere do these cited portions teach or suggest protocol adaptation modules which "convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means (MM)", as recited in the claim.

Finally, the Examiner contends that it would be obvious to combine Hayball and Wilson in view of their teachings in order to "allow management of a network having a plurality of distributed components and systems".<sup>5</sup> However, Hayball discloses a communications network comprising a plurality of nodes 400 and a plurality of links 401, wherein the communications network is managed by a network management system comprising network controllers 402 (column 10, lines 17-25). Accordingly, there is no need to modify Hayball to "allow management of a network" as asserted by the Examiner, thus undermining the Examiner's rationale for the combination.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

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<sup>4</sup> Page 3 of the Office Action dated March 19, 2008.

<sup>5</sup> Pages 3-4 of the Office Action dated March 19, 2008.

Appeal Brief Under 37 C.F.R. § 41.37  
U.S. Application No.: 10/766,834

Attorney Docket No.: Q79501

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: September 25, 2008

**CLAIMS APPENDIX**

**CLAIMS 1-25 ON APPEAL:**

1. (Previously Presented): A management device or arrangement (D) for a communication network (N) which includes a multiplicity of equipment elements (NE-ij), each associated with a primary data management protocol, said device or arrangement (D) including mediation means (MM) coupled to said equipment elements (NE-ij) and to functional interface means (MIF) and system interface means (MIS) coupled to a network management system (NMS), characterized in that it includes protocol adaptation modules (Pa-j) in number at least equal to the number of management protocols associated with said equipment elements, and each arranged i) to convert primary data, coming from an equipment element (NE-ij) in accordance with a management protocol, into secondary data adapted to said mediation means (MM), and ii) to convert secondary data, intended for an equipment element (NE-ij), into primary data in accordance with a management protocol adapted to said equipment element, and in that said mediation means (MM) are arranged, on receipt of the primary or secondary data, to determine the associated equipment element (NE-ij) and then to feed the protocol adaptation modules (Pa-j) corresponding to said determined equipment element.

2. (Previously Presented): A device or arrangement according to claim 1, characterized in that, on receipt of a request designating one of said equipment elements (NE-ij), said mediation means (MM) are arranged to generate a management information tree (MIT) which is representative of the links of said designated equipment element to other equipment elements in said network (N).

3. (Previously Presented): A device or arrangement according to claim 2, characterized in that said mediation means (MM) are arranged, after generating said management information tree (MIT), to configure a graphical user interface (GUI) in accordance with auxiliary data which are representative of said designated equipment element (NE-ij).

4. (Previously Presented): A device or arrangement in accordance with claim 2, characterized in that it includes said configurable graphical user interface (GUI)

5. (Previously Presented): A device or arrangement according to claim 3, characterized in that it includes description modules (MD-p), each associated with at least one of said equipment elements (NE-ij) and including said auxiliary data.

6. (Previously Presented): A device or arrangement according to claim 5, characterized in that each data description module (MD-p) is composed of at least one descriptor.

7. (Previously Presented): A device or arrangement in accordance with claim 6, characterized in that each descriptor is composed of at least one program code file and at least one configuration file.

8. (Previously Presented): A device or arrangement according to claim 7, characterized in that one of said program code files of a descriptor includes first data designating a type to which

an equipment element (NE-ij) belongs, and another of said program code files of said descriptor includes second data designating a management information base definition associated with said equipment element (NE-ij).

9. (Previously Presented): A device or arrangement according to claim 3, characterized in that said graphical user interface (GUI) and said mediation means (MM) are coupled via a bus (B) of the CORBA type.

10. (Previously Presented): A device or arrangement according to claim 2, characterized in that it includes said functional interface module (MIF).

11. (Previously Presented): A device or arrangement according to claim 10, characterized in that said functional interface module (MIF) includes a provisioning module (PRO), arranged to as to extract on command management information concerning said an equipment element (NE-ij) and containing said management information tree (MIT), so as to send these to said equipment.

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12. (Previously Presented): A device or arrangement according to claim 11, characterized in that said provisioning means (PRO) include program code files encapsulated in the north-plug type modules (NP).

13. (Previously Presented): A device or arrangement according to claim 11, characterized in that said provisioning means (PRO) are arranged to generate a communication channel (CC) dedicated to the transportation of chosen codes between at least one connection socket and said mediation means (MM).

14. (Previously Presented): A device or arrangement according to claim 11, characterized in that said functional interface means (MIF) include a supervision module (SUP) suitable for allowing said network management system (NMS) to administer said equipment elements (NE-ij), and to handle the alarms and events coming from said equipment elements (NE-ij) via said mediation means (MM).

15. (Previously Presented): A device or arrangement according to claim 14, characterized in that said supervision module (SUP) is arranged in the form of a public interface of the IDL type.

16. (Previously Presented): A device or arrangement according to claim 1, characterized in that it includes said system interface means (MIS).

17. (Previously Presented): A device or arrangement according to claim 16, characterized in that said system interface means (MIS) includes a navigation module (NAV) arranged to allow said network management system (NMS) to control said graphical user interface (GUI) and said mediation means (MM).

18. (Previously Presented): A device or arrangement according to claim 16, characterized in that said system interface means (MIS) include a persistency module (PER) which is arranged so as to allow the storage in memory of certain information data contained in said management information tree (MIT) and relating to the equipment elements (NE-ij) associated with a chosen level of priority.

19. (Previously Presented): A device or arrangement according to claim 18, characterized in that said persistency module (PER) includes an application programming interface (PAA)

20. (Previously Presented): A device or arrangement according to claim 19, characterized in that said application programming interface (PAA) is of the JDBC type.

21. (Previously Presented): A device or arrangement according to claim 1, characterized in that at least one of said mediation means, the graphical user interface Module (GUI), the functional interface means (MIF) (MM) and the system interface means (MIS) is composed of program code files.

22. (Previously Presented): A management server (MS) for a network management system (NMS), characterized in that it includes a management device or arrangement (D) according to claim 1.

23. (Previously Presented): A network equipment element (NE-ij), characterized in that it includes a management device or arrangement (D) according to claim 1.

24. (Previously Presented): Use of the management device or arrangement (D), the management server (MS), and the network equipment (NE-ij) according to claim 1, in the network technologies which are to be managed.

25. (Previously Presented): Use according to claim 24, characterized in that said network technologies are chosen from a group which includes transmission networks, of the WDM, SONET and SDH types in particular, of data of the Internet-IP and ATM type in particular, and speech of the conventional, mobile and NGN type in particular.

**EVIDENCE APPENDIX**

There has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other similar evidence.

**RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.

**PATENT APPLICATION**

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TELECOMMUNICATION NETWORK**

**SUBMISSION OF APPEAL BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

The statutory fee of \$510 is being charged to Deposit Account No. 19-4880 via EFS Payment Screen. The USPTO is also directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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